

What is claimed is:

1. A method for bit swapping, wherein periodically I
successive bits of a data packet that comprises K bits
5 are mapped onto interleaved bit positions in I
different bursts, respectively, according to a
predefined interleaving scheme and a selected
interleaving depth I, comprising the step of:
10 swapping the value of at least one bit that is
associated with a respective first bit position m in
said data packet with the value of a bit that is
associated with a respective second bit position n in
said data packet, wherein said respective second bit
15 position n is selected such that $n > m$ holds and that
the difference $n-m$ is divisible by I.
2. A method according to claim 1, wherein said swapping
is performed before, during or after said interleaving
20 of said at least I successive bits.
3. A method according to claim 1, wherein said selected
interleaving depth I is taken from a predefined set of
interleaving depths $\{I_1, \dots, I_R\}$, wherein $I_r \leq I_{\max}$ holds
25 for all $r=1, \dots, R$, and wherein said respective second
bit position n is selected such that the difference $n-m$
is divisible by I_{\max} .
4. A method according to claim 1, wherein at least one
30 group of bits is defined within said data packet, and
wherein said step of swapping is only performed

if the interleaved bit position, to which the bit at
said respective first bit position m in said data
packet is mapped according to said predefined
interleaving scheme and said selected interleaving
5 depth I , is a characteristic interleaved bit
position, and

if said bit at said respective first bit position m
in said data packet belongs to said at least one
10 group of bits.

5. A method according to claim 4, wherein depending on
the modulation scheme, the bits on the characteristic
interleaved bit positions suffer from a higher error
15 probability when said bits are modulated, transmitted
over a noisy channel and demodulated as compared to the
bits on the remaining positions.

6. A method according to claim 4, wherein said
20 characteristic interleaved bit positions are the
positions j within a burst that fulfil the criterion
that $(j+1)$ is divisible by p , wherein p is a
predetermined natural number larger than 0.

25 7. A method according to claim 4, wherein said group of
bits consists of a predetermined number L of first bits
of said data packet.

8. A method according to claim 7, wherein said respective
30 second bit position n is selected such that $n-m \geq L$
holds.

9. A method according to claim 8, wherein said data packet comprises the bits of a Transport Format Combination Identifier (TFCI) according to a Flexible Layer One (FLO) of a GSM/EDGE Radio Access Network (GERAN) in said group of L bits and the bits of a Coded Composite Transport Channel (CCTrCH) according to said FLO of said GERAN in the remaining K-L bits, wherein the K bits of said data packet are mapped onto said interleaved bit positions in said bursts according to one of the interleaving schemes and one of the interleaving depths I that are standardised for said FLO of said GERAN, and wherein $p=3$ holds.
10. A method according to claim 9, wherein said step of swapping is performed at least two times for said data packet, wherein the respective first bit position m in each step is different, wherein in at least one of said at least two steps, said respective second bit position n is selected such that $n=m+N$ holds, and wherein in at least one of said at least two steps, said respective second bit position n is selected such that $n=m+K-N$ holds, where N is a predetermined number.
11. A system for bit swapping, wherein periodically I successive bits of a data packet that comprises K bits are mapped onto interleaved bit positions in I different bursts, respectively, according to a predefined interleaving scheme and a selected interleaving depth I, comprising:
- processing means for swapping the value of at least one bit that is associated with a respective first bit

position m in said data packet with the value of a bit
that is associated with a respective second bit
position n in said data packet, wherein said respective
second bit position n is selected such that $n > m$ holds
5 and that the difference $n - m$ is divisible by I.

12. A computer program product directly loadable into the
internal memory of a digital computer, comprising
software code portions for performing the step of claim
10 1 when said product is run on a computer.

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